

DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY		
Texas Essential Knowledge and Skills for Science - Grades 6, 7, 8		
Lesson	Standard	Description
All lessons	§112.22.b.2.A §112.23.b.2.A §112.24.b.2.A	Plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology.
1, 3, 4	§112.22.b.2.B §112.23.b.2.B §112.24.b.2.B	Collect data by observing and measuring.
1, 3, 4	§112.22.b.2.C §112.23.b.2.C §112.24.b.2.C	Analyze and interpret information to construct reasonable explanations from direct and indirect evidence.
1, 3, 4	§112.22.b.2.D §112.23.b.2.D §112.24.b.2.D	Communicate valid conclusions.
3, 4	§112.22.b.2.E §112.23.b.2.E §112.24.b.2.E	Construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.
1, 3, 4	§112.22.b.3.A §112.23.b.3.A §112.24.b.3.A	Analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information.
3	§112.22.b.3.C §112.23.b.3.C §112.24.b.3.C	Represent the natural world using models and identify their limitations.
1, 3, 4	§112.22.b.3.D §112.23.b.3.D §112.24.b.3.D	Evaluate the impact of research on scientific thought, society, and the environment.
3	§112.22.b.4.A §112.23.b.4.A §112.24.b.4.A	Collect, analyze, and record information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, timing devices, hot plates, test tubes, safety goggles, spring scales, magnets, balances, microscopes, telescopes, thermometers, calculators, field equipment, compasses, computers, and computer probes.

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1, 3, 4	§112.24.b.4.B	Extrapolate from collected information to make predictions.
3, 4	§112.24.b.6.A	Describe interactions among systems in the human organism.
Texas Essential Knowledge and Skills for Mathematics – Grades 6, 7, 8		
Lesson	Standard	Description
3, 4	§111.22.b.1.B	Generate equivalent forms of rational numbers including whole numbers, fractions, and decimals.
3, 4	§111.22.b.1.C	Use integers to represent real-life situations.
3, 4	§111.22.b.2.C	Use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates.
4	§111.22.b.8.A	Estimate measurements and evaluate reasonableness of results.
3, 4	§111.22.b.10.D	Solve problems by collecting, organizing, displaying, and interpreting data.
3, 4	§111.22.b.11.A	Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.
3, 4	§111.22.b.11.B	Use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.
4	§111.23.b.1.B	Convert between fractions, decimals, whole numbers, and percents mentally, on paper, or with a calculator.
3, 4	§111.23.b.2.G	Determine the reasonableness of a solution to a problem.
3, 4	§111.23.b.3.A	Estimate and find solutions to application problems involving percent.
3, 4	§111.23.b.11.A	Select and use an appropriate representation for presenting collected data and justify the selection.
3, 4	§111.23.b.11.B	Make inferences and convincing arguments based on an analysis of given or collected data.
3, 4	§111.23.b.13.A	Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.
3, 4	§111.24.b.1.A	Compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals.
3, 4	§111.24.b.1.B	Select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.
3, 4	§111.24.b.2.A	Select and use appropriate operations to solve problems and justify the selections.
3, 4	§111.24.b.2.B	Add, subtract, multiply, and divide rational numbers in problem situations.

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3, 4	§111.24.b.2.C	Evaluate a solution for reasonableness.
3, 4	§111.24.b.4	Generate a different representation given one representation of data such as a table, graph, equation, or verbal description.
3, 4	§111.24.b.11.B	Use theoretical probabilities and experimental results to make predictions and decisions.
3, 4	§111.24.b.12.C	Construct circle graphs, bar graphs, and histograms, with and without technology.
3	§111.24.b.13.A	Evaluate methods of sampling to determine validity of an inference made from a set of data.
3, 4	§111.24.b.14.A	Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.
3, 4	§111.24.b.16.B	Validate his/her conclusions using mathematical properties and relationships.

Texas Essential Knowledge and Skills for English Language Arts and Reading – Grades 6, 7, 8

Lesson	Standard	Description
2, 3, 4	§110.22.b.7.B §110.23.b.7.B §110.24.b.7.B	Read regularly in instructional-level materials that are challenging but manageable.
2, 3, 4	§110.22.b.9.B §110.23.b.9.B §110.24.b.9.B	Draw on experiences to bring meanings to words in context such as interpreting idioms, multiple-meaning words, and analogies.
All lessons	§110.22.b.10.A §110.23.b.10.A §110.22.b.10.A	Use his/her own knowledge and experience to comprehend.
2, 3, 4	§110.22.b.10.F §110.23.b.10.F §110.24.b.10.F	Determine a text's main (or major ideas) and how those ideas are supported with details.
2, 3, 4	§110.22.b.10.G §110.23.b.10.G §110.24.b.10.G	Paraphrase and summarize text to recall, inform, or organize ideas.
2, 3, 4	§110.22.b.10.H §110.23.b.10.H §110.24.b.10.H	Draw inferences such as conclusions or generalizations and support them with text evidence and experience.

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2, 3, 4	§110.22.b.11.A §110.22.b.11.A §110.24.b.11.A	Offer observations, make connections, react, speculate, interpret, and raise questions in response to texts.
All lessons	§110.22.b.13.A §110.23.b.13.A §110.24.b.13.A	Form and revise questions for investigations, including questions arising from readings, assignments, and units of study.
3, 4	§110.22.b.13.C §110.23.b.13.C §110.24.b.13.C	Use multiple sources, including electronic texts, experts, and print resources, to locate information relevant to research questions.
1, 3, 4	§110.22.b.13.D §110.23.b.13.D §110.24.b.13.D	Interpret and use graphic sources of information such as maps, graphs, timelines, or tables to address research questions.
All lessons	§110.22.b.13.G §110.23.b.13.G §110.24.b.13.G	Draw conclusions from information gathered from multiple sources.
All lessons	§110.22.b.13.H §110.23.b.13.H §110.24.b.13.H	Use compiled information and knowledge to raise additional, unanswered questions.
All lessons	§110.22.b.13.I §110.23.b.13.I §110.24.b.13.I	Present organized statements, reports, and speeches using visuals or media to support meaning, as appropriate.
All lessons	§110.22.b.15.A §110.23.b.15.A §110.24.b.15.A	Write to express, discover, record, develop, reflect on ideas, and to problem solve.
All lessons	§110.22.b.15.C §110.23.b.15.C §110.24.b.15.C	Write to inform such as to explain, describe, report, and narrate.
All lessons	§110.22.b.15.E §110.23.b.15.E §110.24.b.15.E	Select and use voice and style appropriate to audience and purpose.
All lessons	§110.22.b.15.F §110.23.b.15.F	Choose the appropriate form for his/her own purpose for writing, including journals, letters, editorials, reviews, poems, presentations, narratives, reports, and instructions.

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	§110.24.b.15.F	
1, 2, 3	§110.22.b.20.A §110.23.b.20.A §110.24.b.20.A	Frame questions to direct research.
3, 4	§110.22.b.22.B §110.23.b.22.B §110.24.b.22.B	Interpret important events and ideas gathered from maps, charts, graphics, video segments, or technology presentations.

Texas Essential Knowledge and Skills for Health Education – Grades 6, 7, 8

Lesson	Standard	Description
3	§115.22.b.1.A	Analyze healthy and unhealthy dietary practices.
3, 4	§115.22.b.2.A	Analyze the relationships among the body systems.
4	§115.22.b.3.C	List noncommunicable and hereditary diseases and respective prevention and treatment techniques.
3, 4	§115.22.b.4.B	Use critical thinking to research and evaluate health information.
3	§115.23.b.3.B	Analyze risks for contracting specific diseases based on pathogenic, genetic, age, cultural, environmental, and behavioral factors.
3, 4	§115.23.b.3.C	Distinguish risk factors associated with communicable and noncommunicable diseases.
4	§115.23.b.4.C	Demonstrate ways to use health information to help self and others.
4	§115.23.b.9.A	Describe personal health behaviors and knowledge unique to different generations and populations.
3, 4	§115.23.b.12.A	Interpret critical issues related to solving health problems.
3, 4	§115.23.b.12.B	Relate practices and steps necessary for making health decisions.
4	§115.23.b.12.C	Appraise the risks and benefits of decision-making about personal health.